Big Data Analytics and Applications for the Post
Robert Reisner – UrsaMajor Associates
Wendy Eitan – UPU

The Internet of Postal Things
Adam Houck – IBM
Etay Oren - Communithings
Between now and 2018 we’ll see the number of smartphones, tablets, and other connected devices skyrocket.
The Internet of Postal Things

Adam Houck
Senior Manager
IBM Strategy and Analytics
A Workable Definition

Is it.......?

Or is it.......?
Hypothesis

“Significant, yet-to-be exploited value exists at the intersection of the Internet of Things and the vast physical infrastructures of Posts”
We Did Our Homework

- IBM – OIG Engagement began August 2014

- Research Performed
  - Strategy and Technical Research
  - SME Interviews
  - IBM AoT Ideation Exercise
  - UPU IoPT Conference

- Takeaways
  - **Opportunities** indeed exist and have yet to be exploited
  - **Confirmed the idea** of a progression from shorter-term to longer-term applications, in relation to strategic value and feasibility
  - **Solutions vary** in how much they leverage the richness of the connected postal infrastructure

Map of each device in the world connected to the Internet
Source: Shodan, August 2, 2014
Arriving at an Equilibrium

Maturing technologies in sensors, networks, processing power, and analytics are creating a world that is instrumented, interconnected, and intelligent.

Postal DNA is rooted in binding nations together through their people, assets, and their networks to drive economic development, communication, and commerce.

We see the potential for the marriage of technologies and postal infrastructures to make impacts to not only the post’s mission, but to the larger postal industry, economic vitality, and citizen health and safety.

Clear strategy and planning is required to direct investments to areas of immediate opportunity and simultaneously plan for additional complex and profitable ventures.

Opportunities abound in myriad areas including Products, Operations, Infrastructures, Customer Experiences, and the Role of the Post in Society.
Delivery Fleet in 2 Dimensions

Source: IBM Research Labs Analysis
Connected Vehicle – Accumulation of the Possible

Vehicle Passes Apartment Complex and Collects Smart Utility Meter Data

Vehicle Passes GoPost Location and Collects Data on Parcels yet to be Collected

Vehicle Collects Ambient Light Conditions and Transmits to Smart City Cloud

Vehicle Collects Road Quality Data as it Navigates its Daily Delivery Route

Source: IBM Research Labs Analysis
The World is not without Challenges

• Brand
  • Some areas are germane to the core postal business
  • Other opportunities require redefining the brand and potential role in society

• Cultural
  • Determining the best business models requires experimentation
  • Changing the DNA is not always easy
  • Serving as information broker for other agencies is likely neither ‘traditional’ nor ‘comfortable’

• Core Capabilities
  • Likely that posts do not possess the needed technical capabilities in house
  • How familiar are posts with partnering to address challenges of scale, data capture, and analytics?
Internet of Postal Things
Postal Core Value: Presence in every street every day

- **IoT Services**
  - Mobile coverage data
  - Air Quality
  - Smart city

- **Sensing as a Service**
  - Data sharing and brokerage
  - Data Monetization
MY STREET
Mobile coverage – B2C site

Coverage at your street

Ko Galerie, Dusseldorf

has best coverage in your street!!

Click Here

to switch operator!!

B2C Customers

All rights reserved – CommuniThings S.A. Proprietary and Confidential
## Coverage Reports

**Telco Intelligence – B2B site**

### B2B Customers

#### Reports:

<table>
<thead>
<tr>
<th>Single Operator / Benchmarks</th>
<th>2G</th>
<th>3G</th>
<th>4G</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Street</strong></td>
<td>![2G icon]</td>
<td>![3G icon]</td>
<td>![4G icon]</td>
</tr>
<tr>
<td><strong>Commune / City</strong></td>
<td>![2G icon]</td>
<td>![3G icon]</td>
<td>![4G icon]</td>
</tr>
<tr>
<td><strong>Country</strong></td>
<td>![2G icon]</td>
<td>![3G icon]</td>
<td>![4G icon]</td>
</tr>
<tr>
<td><strong>Public transportation</strong></td>
<td>![2G icon]</td>
<td>![3G icon]</td>
<td>![4G icon]</td>
</tr>
</tbody>
</table>

All rights reserved – CommuniThings S.A. Proprietary and Confidential
Track & Find

Find my Bike/Pet

Smart Bins

All rights reserved – CommuniThings S.A. Proprietary and Confidential
Postal Core Value: Presence in every street every day

- **IoT services**
  - Mobile coverage
  - Air Quality
  - Smart City

- **Sensing as a Service**
  - Data sharing and brokerage
  - Data Monetization
Sensing as a Service

GW / Sensors

Data Aggregation

Apps / services

CommuniThings
All rights reserved _ proprietary and confidential
Air Quality at your street

Ko Galerie, Dusseldorf

Air Quality Score at your street

3

Sub Index

Quality Score

O₃ CO NO₂ NO PM₁₀

4 3 3 3 2

Locations

TOP 15

Air Quality Score

70%

All rights reserved – CommuniThings S.A. Proprietary and Confidential
Coverage at your Street
Environmental Metering

- O₃
- CO
- NO₂
- NO
- PM₁₀

Your score: 93.5 / 100
**MYSTREET Option Plus**

- Coverage at your Street
- Environmental Metering

- O₃
- CO
- NO₂
- NO
- PM₁₀

Your score: 93.5 / 100
CommuniThings – Postal Value Chain

Postal

CommuniThings

City

Citizens

Enterprises

Sensors

Server

Reports

All rights reserved – CommuniThings S.A. Proprietary and Confidential